

Emissions Monitoring Plan Comment and Response Table

Item #	Comment	Response
1	<p>The stack emission limit of 9mg/Rm3 for PM 2.5 should include filterable and condensable. This is a difference of what was approved in the EA. The CofA did not stipulate filterable only.</p>	<p>Air Pollution Source Control staff at the Standards Development Branch, MOE indicated that the particulate limits in A-7 are specifically for filterable particulate as is consistent with the Ontario Source Testing Code (OSTC). OSTC, version 3 (Method ON-5) defines particulate matter as: "Particulate matter refers to any filterable material, with an aerodynamic diameter between 44 um and 0.3um, that maintains its solid state properties at 120 degrees C, under atmospheric pressure."</p> <p>A letter to Clarington, dated July 28, 2011, from the MOE on the Clarington Council recommendation states "The Ministry has required that the condensable portion of particulates will be monitored as part of the annual source testing."</p>
2	<p>There is no way to monitor the pollutants from the facility on the days that stack testing is not performed. The frequency is not acceptable.</p>	<p>The waste coming into the facility is fairly consistent throughout the year. Both Durham and York have programs in place to remove unacceptable material. Continuous monitoring of key parameters will give confidence that the facility is operating appropriately and is meeting all of the regulatory limits.</p> <p>In addition, the ground-truthing of the model will occur through the ambient air monitoring which also includes the continuous monitoring of various performance parameters.</p>
3	<p>There is no continuous monitoring of particulate matter. Opacity monitoring is an unacceptable substitute.</p>	<p>Installation and operation of equipment that has not been determined to be reliable for demonstrating compliance has not been recommended by the Regions technical advisors, HDR. A-7 states "...intent of the monitor may be implemented either by installing a device for direct measurement of the parameter or of a suitable surrogate." The continuous opacity monitors required under Section 7 (2) (d) of the CofA will serve as the suitable surrogate to demonstrate the baghouse installed for particulate control is operating properly.</p> <p>Senes also state in email to Clarington dated June 7, 2011, "Opacity is used as a surrogate for PM emissions and provides qualitative information on the operation and maintenance of particulate control equipment."</p> <p>In a letter addressed to Clarington by the MOE dated July 28, 2011, in response to Clarington Council recommendations, "...there are a number of process parameters which must be continuously monitored which give confidence that the facility is operating appropriately and it meeting all of the regulatory limits."</p>
4	<p>The plan has no continuous monitoring of mercury.</p>	<p>Both Durham and York have facilities in which residents can take to dispose of mercury containing and other hazardous waste, as do some large box stores. Additionally hazardous waste event days are held each year to provide a more convenient drop off location for residents.</p>

		<p>Extensive promotion and education by Durham and York is carried out to help educate residents on proper disposal of household hazardous waste. Very little to none of the waste entering the facility will contain mercury. In addition, the Regions will construct a household hazardous waste depot in Clarington as listed in the HCA. This will further remove these items from the waste stream.</p> <p>The final revisions to the Ontario A-7 Guidelines also state mercury may be considered for continuous monitoring. Our technical advisors, HDR, have reviewed these systems and advised the Regions as follows: Mercury CEMS do exist, however, these systems have challenges to long-term reliability, maintenance and calibration that limit the continuous operation. Continuous sampling for mercury has not been recognized as a standard compliance method used by the USEPA, EU, Environment Canada or the MOE for EFW facilities. Long term accuracy and reliability of the results of these systems has never been demonstrated.</p> <p>Additionally, in a letter dated July 28, 2011, addressed to Clarington from the MOE stated "...the Ministry's preference is to use annual source testing which is more accurate and reliable. Please note that there are a number of process parameters which must be continuously monitored which give confidence that the facility is operating appropriately and is meeting all the regulatory limits, including mercury."</p>
5	Will continuous monitoring of organic matter be used for compliance?	A CEMS for Organic matter was stipulated in the CofA and will be installed on each unit at the facility. The CEMs for Organic matter will not be compliance based as they have not been proven reliable for compliance through USEPA Environmental Technology Verification Program. Additionally Senes in a letter to Clarington dated June 7, 2011, stated "since the facility will be equipped with a CO monitor a CEM for organic matter is not necessary, nor warranted." Organic matter will be continuously monitored and used as a performance indicator of the combustion process.
6	Will start-up and shut down and malfunction from CEMS data be made publicly available and included in the annual emissions?	<p>This data will be recorded, but will not be made publicly available. Start-up and shut-down CEM data will not be included. Reports which will be made publicly available are included in the CofA Condition 16. Public Access to Documentation.</p> <p>The start-up and shut-down procedures include the introduction of natural gas to the process to ensure that the time/temperature requirements are maintained. This will also ensure the adherence to the performance limits.</p>
7	Continuous sampling for Dioxins and Furans should be used to determine compliance.	In a letter addressed to Clarington, dated July 28, 2011, by the MOE, in response to a Council recommendation states, "The Ministry considered the request to increase this to a biweekly frequency, however, chose to retain the monthly frequency. The purpose of this monitoring

		program is to gather information on dioxin and furan emissions over a long period of time, as opposed to being used for process control...Please note that there are a number of process parameters which must be continuously monitored which give confidence that the facility is operating appropriately and is meeting all of the regulatory limits, including dioxins and furans.”
8	Table 4 and table 5 from the plan list the contaminants for compliance and source testing. If the contaminants in Table 5 are not compliance based then what is the standard to which they will be measured against?	The parameters for the contaminants not included in the CofA performance requirements and included in Table 5 will be modelled and compared against the limits contained in O.Reg 419/05 Air Pollution –Local Air Quality.
9	We do not think the choice of consultant used to prepare both the Certificate of Approval and the Emissions Plan is appropriate and an independent consultant should have been chosen.	All consultants were selected in accordance with the Region’s finance and purchasing by-laws and have the skills, experience and qualifications to carry out the tasks required in an objective fashion. The membership of one consulting firm or another with a larger group or association is not a factor in the exercise of professional skills of its employees. Regardless of which consultant worked where, licensed and certified professionals must uphold their code of ethics first and foremost – and the Region has no reason to believe that this has not been the case for any consultant retained for this project.
10	We do not feel the EFWAC meetings count towards public consultation on this plan.	The public can always ask any member of the committee, or any local or regional councillor, to forward their concerns and they are invited to attend the public EFWAC meetings and council meetings.
11	We do not find it acceptable that the Facility could continue operation for 3 hours without shutting down, even if monitoring is showing major deviations from performance requirements. We find both the provision in the Certificate of Approval and this Plan, in failing to address these inadequacies, unacceptable and failing to protect human health.	This requirement was introduced by the MOE in CofA Condition 6 (4). Shut down procedures and will be in place which will ensure the facility is shut down in the safest manor possible. In the case of minor process upsets, shutting down the facility is not always the best available response from a human health and safety perspective. Whether or not the facility shuts down, the Regions and Covanta remain legally responsible for emissions from the facility and could be subject to enforcement action if judged by the Ministry of the Environment to have endangered human health through improper management of the situation. The wording of Condition 6 (4) provides the operator with the flexibility needed to make the best possible decision to protect human health.
12	There is no continuous monitoring of carbon dioxide at the stack provided for in the Plan, though Guideline A-7 does list carbon dioxide as a parameter that may be considered for continuous or	Carbon dioxide is not a contaminant of concern but a GhG which will be estimated from combustion related parameters such as O ₂ which will be continuously monitored. As listed on Table 5 of the Emissions Plan, carbon dioxide emissions testing wil be undertaken during source testing. The operation of the Facility will result in <u>an overall reduction in GHGs</u> when compared to the

	<p>long-term monitoring. As the facility is expected to emit large quantities of carbon dioxide and its equivalents, and given the established high concern regarding their contribution to global warming, and that this is the first new incinerator facility in about 20 years in Ontario, continuous monitoring of carbon dioxide would be much better in establishing the actual annual carbon dioxide emissions from this incinerator than a once a year stack test.</p>	<p>current practice of land filling waste. The Facility will directly emit fossil or “anthropogenic” CO₂ from the combustion of plastics, however, as noted in the Life Cycle Assessment report (Appendix C-3 of the EA), the amount of avoided GHGs associated with electrical energy/materials recovery and avoided landfill methane emissions is more than the direct fossil CO₂ emissions from the Facility. The net result is a reduction in GHG emissions.</p>
13	<p>While carbon monoxide will be monitored continuously at the economizer outlet, since there is no source testing proposed for carbon monoxide, that there will be no monitoring of carbon monoxide leaving the baghouse outlet. We request that carbon monoxide be included in the stack testing done.</p>	<p>CO is an operational parameter and utilized as a performance indicator of the for complete combustion efficiency. It is measured continuously at one location – economizer outlet – and is not affected by processes beyond that point so there is no need to source test when the CEM covers this more fully.</p>